NURSES SUPPORTING NURSES: IMPLEMENTATION OF A MENTOR TRAINING PROGRAM TO IMPROVE NEW GRADUATE REGISTERED NURSES' SENSE OF BELONGINGNESS

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ABSTRACT

Sheri Phifer: Nurses Supporting Nurses: Implementation of a Mentor Training Program to Improve New Graduate Registered Nurses' Sense of Belongingness
(Under the direction of Cheryl B. Jones)

Purpose: The purpose of this evidence-based, quality improvement project was to develop and implement a mentor training program for Registered Nurses who mentor new graduate registered nurses. The goal of the training was to foster a sense of belongingness among new graduate registered nurses in an acute care hospital. **Background:** New graduate registered nurse (NGRN) turnover is a critical issue for hospitals, as 35-60% of these nurses quit their jobs during the first year of employment. The use of mentors can help to ease NGRN transition to practice concerns and may help retain NGRNs during the first year of employment. **Methods:** A one-hour mentor training class was developed and offered to mentors. After training, mentors were matched with a NGRN employed in a different work unit who had a similar work shift and schedule. As part of this program, mentor-NGRN pairs met on a monthly basis. New graduate registered nurses' perceptions of belongingness were measured before and three months after beginning the program using a modified version of the Belongingness Scale-Clinical Placement Experience survey (Levett-Jones, Lathlean, Higgins, & McMillian, 2008). **Results:** There were no differences in mean scores on the Belongingness Scale-Clinical Placement Experience survey as reported by NGRNs at pre-implementation and three-month post-implementation of the mentor training program. Also, the six-month NGRN turnover rate, for participants in this project was 9.37%, which is 3.83% higher than the same time in the previous year's cohort. **Conclusion:** While the literature suggests that mentors can be an effective strategy for nurturing NGRNs

during their early employment period, the findings of this project did not indicate that the training and assignment of mentors improved NGRNs' sense of belongingness. Several limitations were noted in this study including a small sample size and a short time frame for evaluation. Nonetheless, these findings provide some insights into a NGRN mentor program that might help others.

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INTRODUCTION

Registered nurses (RNs) make up the largest component of the health care workforce in the United States and comprise one of the fastest-growing occupations in the country (American Nurses Association [ANA], 2014; Bureau of Labor Statistics, 2015). The Bureau of Labor Statistics projects that the RN workforce will grow by 16%, from 2.75 million in 2014 to 3.19 million in 2024 (Bureau of Labor Statistics, 2015). Despite this growth, the demand for nurses outpaces the supply, and an insufficient supply of nurses requires that hospitals develop measures to recruit and retain nurses (ANA, 2014; Carnevale, Smith, & Gulish, 2015; Punke, 2017; Thew, 2017).

One of the measures hospitals often use to fill RN vacancies is hiring new graduate registered nurses (Fox, 2010; Halfer, Graf, & Sullivan, 2008). Unfortunately, the first year of practice for new graduate registered nurses (NGRNs) can be one of the most challenging of their careers (Jewell, 2013), because they often feel *reality shock* when there is a disparity between NGRN expectations and actual experiences in their first full time nursing job (Dyess & Parker, 2012). This phenomenon occurs in response to a number of stressors during the transition period from nursing student to employment, including feelings of unpreparedness or inadequacy, difficulty in learning to navigate the hospital environment, and challenges integrating and fitting into the unit culture (Ortiz, 2016; Pfaff, Baxter, Jack, & Ploeg, 2014; Rohatinsky & Jahner, 2015). As a result, many NGRNs may change jobs during their first year of employment (Halfer et al., 2008; Weng et al., 2010).

Previous research indicated that 35-60% of NGRNs quit their jobs during the first year of employment (Weng et al., 2010). Without intervention, this high level of turnover can result in significant financial losses to an organization, as the cost of turnover can be as high as $88,000 for NGRN (Jones, 2005; 2008). Additionally, the loss of employees can disrupt the healthcare team and may negatively affect the delivery of quality patient care, and increase the utilization of overtime and contract nurses (Brewer, Kovner, Greene, Tukov-Shuser, & Djukic, 2011; Cottingham, DiBartolo, Battistoni, & Brown, 2011).

One of the factors associated with NGRN turnover during the first year of employment is whether or not NGRNs feel a sense of belongingness, or acceptance, by others on their work unit (Fink, Krugman, Casey, & Goode, 2008; Lalonde & McGillis Hall, 2017). Belongingness in the workplace refers to the extent to which employees perceive they are supported, valued, included, and accepted by others in their place of work (Cockshaw & Shochet, 2010). It has also been reported that there is a strong relationship between a NGRNs' perceived sense of belongingness and their perceived satisfaction in his or her job (Winter-Collins & McDaniel, 2000).

To prevent NGRN turnover, hospitals and other health care organizations have developed policies and practices focused on creating a work environment in which NGRNs feel supported and valued (Brewer et al., 2011; Buffum & Brandon, 2009; Mills & Mullins, 2008; Wieck, Dols, & Landrum, 2010). One approach that received a great deal of attention in the past decade is the implementation of NGRN residency programs. NGRN residency programs are specifically designed to facilitate and support the development and integration of NGRNs into the workplace (AL-Dossary, Kitsantas, & Maddox, 2014). While components of NGRN residency programs vary by organization (Rush, Adamack, Gordon, Lilly, & Janke, 2013), most NGRN residency

programs include an orientation period with a resource person, identified as either a preceptor or mentor (Gordon et al., 2014; Rush, Adamack, Gordon, Lilly, & Janke, 2013).

The terms *mentor* and *preceptor* are often used interchangeably (Wensel, 2006). However, it is important to note that a mentor is not synonymous with a preceptor even though they both serve in supportive roles (Wensel, 2006). The role of a preceptor is to act as an educator, evaluator, role model and advocate of the NGRN (Kanaskie, 2006; Robitalle, 2013). This relationship typically involves a defined time commitment for the orientation of NGRNs, with well-defined outcomes that will determine when the precepting relationship ends (Kanaskie, 2006). A mentor serves as an objective listener, provides a voice without bias, shares insights about finding balance between one's professional and private lives, and offers guidance for increased professional growth, typically without a defined timeline (Buffum & Brandon, 2009; Fox, 2010; Mills & Mullins, 2008)

Interestingly, the strategic pairing of trained mentors with NGRNs to provide ongoing support and guidance during the first year of employment is associated with increased NGRN job satisfaction and retention (Fox, 2010; Mills & Mullins, 2008). Mentor programs for NGRNs help them achieve competency, confidence, and autonomy, which may result in decreased turnover rates (Komaratat & Oumtanee, 2009; Ulrich et al., 2010). To help NGRNs transition into their new roles in hospitals, a mentor program provides social support and fosters NGRN's cultural integration into the work place through interpersonal relationships (Chappell, Richards, & Barnett, 2014; Komaratat & Oumtanee, 2009). The presence of supportive interpersonal relationships contributes to one's sense of belonging (Baumeister & Leary, 1995). Therefore, a mentor program for NGRNs is expected to improve NGRNs' feelings of belongingness.

Practice Question

Do NGRNs have an increased sense of belongingness that impacts turnover rates after participating in a NGRN mentor program with mentors that have been formally trained for their role?

Purpose of Project

The purpose of this evidence-based project was to develop and implement a mentor training program for Registered Nurses serving as mentors, to foster a sense of belongingness and positively impact turnover rates of NGRNs at one acute care hospital. This project assessed NGRNs' sense of belongingness before and after implementation of the mentor program to determine changes that occur post-implementation, as well as turnover after three months. This project provides information that organizational managers and leaders can use to justify the development of such a program, and informs the development of practices and policies aimed at improving a sense of NGRN belongingness.

Significance to Nursing and Healthcare

Labor represents approximately 54.2% of all healthcare operating costs (Herman, 2013). Nurses make up the largest components of the health care workforce and is one of the fastest-growing professions in the country (American Nurses Association [ANA], 2014). Turnover of NGRNs is a common problem for hospitals that may affect financial performance, patient safety and health care quality (Burr, Stichler, & Poeltler, 2011; Komaratat & Oumtanee, 2009). With the cost of NGRN turnover high (Brewer et al., 2011), including the use of overtime and contract labor (Jones, 2008), the reduction in NGRN turnover equates to substantial potential savings for an organization (Brewer, Kovner, Greene, Tukov-Shuser, & Djukic, 2011; Burr et al., 2011; Jones, 2004; Trepanier, Early, Ulrich, & Cherry, 2012). By decreasing NGRN turnover, a mentor

program could have a significant impact on an organization's financial performance over a three-year period of time (Buffum & Brandon, 2009; Mills & Mullins, 2008).

According to the National Council of State Boards of Nursing (2015), 50% of the nursing workforce is 50 years of age or older. As these nurses retire, hospitals are expected to lose human capital needed to provide care to the baby boomer population (Barr, 2014; McCloughen & O'Brien, 2005). The departure of experienced nurses has potentially serious implications for patient care quality because these nurses have the knowledge and clinical judgment necessary for the clinical management of patients (Benner, 1984; Barr, 2014; McCloughen & O'Brien, 2005). These experienced nurses also possess the knowledge, skills, and wisdom needed to mentor and foster the NGRNs sense of belongingness on a unit.

To help NGRNs develop essential knowledge and skills, an experienced mentor can help guide their clinical progression and help them understand and adapt to new clinical situations (Benner, Tanner, & Chesla, 2009; Ulrich et al., 2010). These NGRNs also need an experienced mentor to help them integrate into the work environment. During the transition from student to skilled practitioner, a mentor will help the NGRN grow as a professional, provide advice and guidance, and help them navigate difficult situations (Rohatinsky & Jahner, 2015).

It is well known that NGRNs lack confidence and require ongoing verbal and physical cues to help them develop appropriate clinical judgment (Benner, 1982). As the NGRN gains knowledge and practice experience, a mentor can provide guidance and support by discussing specific clinical situations and helping them to set priorities and ensure that patients' critical needs are met (Davis & Maisano, 2016). Improving NGRN experiences is critical to lowering the high rate of NGRN turnover in hospitals and ensuring quality of care delivery. Mentor programs are associated with improved NGRNs' perceptions of job satisfaction. Therefore, it is logical to

expect that a program that trains nurses to be mentors might also improve NGRNs' perceptions of belongingness on their work unit. In turn, mentor programs may decrease NGRN turnover and its associated costs, and improve the work environment for nurses (Buffum & Brandon, 2009; Fox, 2010; Komaratat & Oumtanee, 2009).

Chapter Summary

This chapter highlighted the problem of reality shock that NGRNs experience during their first year of practice. It introduced the purpose of this DNP project, which was to implement a mentor training program to foster a sense of belongingness among NGRNs at one acute care hospital. The next chapter will discuss the literature that addresses this concern, and provides support for the conduction of this project.

CHAPTER 2

REVIEW OF THE LITERATURE

Chapter Introduction

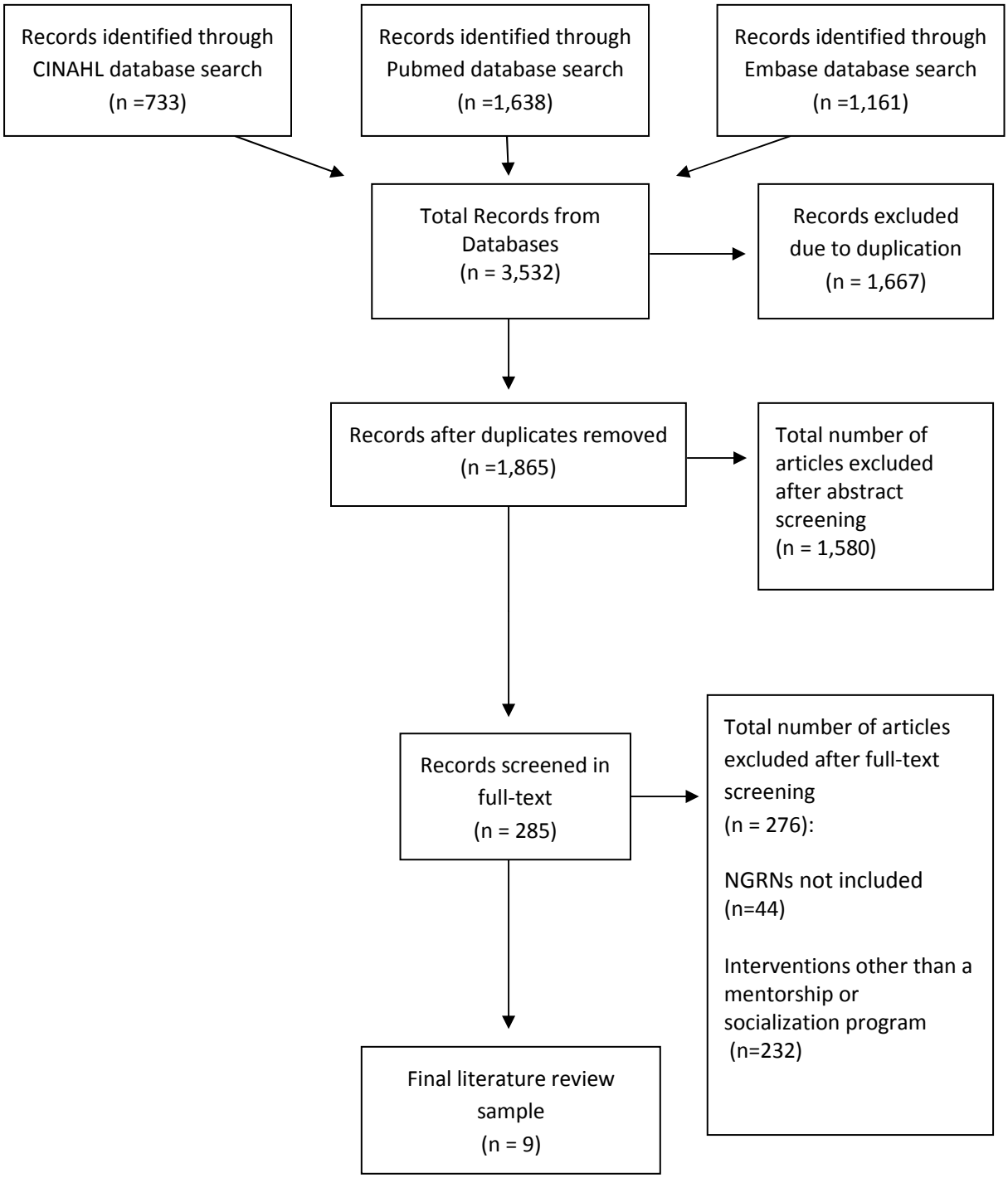
During the transition period from student to practitioner, NGRNs require guidance, direction and decision-making support from more experienced nurses (Rohatinsky & Jahner, 2015). This guidance often comes from a mentor – either intentionally or unintentionally formed – that occurs to promote and support socialization of new nurses within an organization (Fox, 2010; Rohatinsky & Jahner, 2015). Nurse mentor programs (NMPs) pair NGRNs with experienced nurses to facilitate growth and development and foster relationships as NGRNs transition into professional practice (American Nurses Association [ANA], n.d.). These programs have been reported to increase new graduate nurse job satisfaction, clinical proficiency and confidence, and provide necessary structure, support and guidance to NGRNs (Fox, 2010; Grindel & Hagerstrom, 2009; Komaratat & Oumtanee, 2009).

To better understand NMPs and associated outcomes, a review of the literature was conducted to explore evidence-based strategies for the development of a NGRN mentor program. This chapter reports the findings of the literature review. The following areas are included in this chapter: the search strategy, an overview of the studies reviewed, and the common components and outcomes of mentor program interventions.

Search Strategy

A scoping review of the literature as outlined by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was undertaken to identify components and outcomes of successful NGRN mentor programs (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009). The literature search was conducted using the following three databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Pubmed, and Embase. Search terms included "graduate nurse" OR "graduate nurse turnover" AND "nursing shortage" OR "reality shock" "mentorship" OR "retention" OR "residency" OR "socialization". Because mentor programs are common components of residency programs, "residency" was also included as a search term. Figure 1 illustrates the search process used following the initial application of PRISMA guidelines.

Figure 1: PRISMA Flow Diagram



The initial database search yielded 3,532 articles, of which, 1,667 articles were excluded because of duplication. The titles and abstracts of these remaining articles were screened for inclusion based on the following criteria: (a) articles were published between January 2007 and July 2017, (b) studies were conducted in hospitals, and (c) studies were conducted in an English-speaking country, in particular, the United States, Canada, or Australia. At this step, 1,580 articles were excluded because they did not meet these initial criteria.

The remaining studies (n=285) were screened a second time in full-text. Studies were excluded at this level of review (n=276) that: (a) were not consistent with the study purpose and omitted a focus on NGRNs (n=44), or (b) focused on interventions other than a mentor or socialization program (n=232). Altogether, nine studies met inclusion criteria. In general, the mentor programs described in the literature varied greatly in their design and the outcomes studied.

After the sample was determined, the literature was analyzed for common themes of mentor programs. The major themes that emerged were: program components; and program outcomes that included job satisfaction, turnover, intent to stay, and belongingness. A general overview of studies reviewed will be discussed first, followed by a discussion of the common themes and NMP components, and a discussion of the program outcomes.

Overview of Studies

All studies were quantitative in design and conducted in the United States (Burr, Stichler, & Poeltler, 2011; Faron & Poeltler, 2007; Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Latham, Ringl, & Hogan, 2011; Mills & Mullins, 2008; Schroyer, Zellers, & Abraham, 2016; Scott & Smith, 2008). A summary of the literature review is included in Appendix A.

Common Components of Mentor Program Interventions

Several common components of mentor programs emerged from this review. A mentor was used as an intervention in all studies to foster support and socialization of NGRNs into an organization or unit (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Latham, Ringl, & Hogan, 2011; Mills & Mullins, 2008; Schroyer et al., 2016; Scott & Smith, 2008). In five studies, the mentor program intentionally assigned a nurse mentor to a NGRN and the mentor-mentee match was established by a designated person within the organization (Fox, 2010; Grindel & Hagerstrom, 2009; Mills & Mullins, 2008; Schroyer, Zellers, & Abraham, 2016; Scott & Smith, 2008). Six of the mentor programs paired mentors and mentees for a one-on-one relationship over a 12-month period (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Scott & Smith, 2008).

Several studies reported using a formal mentor/mentee training session to orient each to their respective roles and to program components (Burr, Stichler, & Poeltler, 2011; Fox, 2010; Latham et al., 2011). Two studies reported that regular, monthly meetings between the mentor and NGRN were an effective component for socialization of the nurses (Burr, Stichler, & Poeltler, 2011; Grindel & Hagerstom, 2009). While there was no consistency in the specific type of nurse mentor program, there were common components among the studies.

Program Outcomes

All of the studies reported specific program outcomes and defined an evaluation process to determine the effectiveness of various components of each program. Outcomes of these programs included increased job satisfaction (Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Mills & Mullins, 2008; Scott & Smith, 2008), higher intent to stay (Grindel &

Hagerstrom, 2009; Scott & Smith, 2008), decreased NGRN turnover (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Halfer et al., 2008; Latham et al., 2011; Mills & Mullins, 2008; Schroyer et al., 2016), and a strong sense of belongingness (Burr et al., 2011). A discussion of the literature in each of these areas follows.

Job Satisfaction

Mentor programs have been shown to foster long-term growth and retention through a structured support system that enhances NGRN job satisfaction (Mills & Mullins, 2008). The literature indicates that NGRNs experience varying levels of job satisfaction during the first 6 to 18 months of hire (Grindel & Hagerstrom, 2009; Mills & Mullins, 2008).

Four studies reported the effectiveness of 12-month programs that used mentors to support NGRNs on NGRN job satisfaction (Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Scott & Smith, 2008). In particular, one study implemented a 12-month NGRN mentor program for the purpose of increasing nurse satisfaction and decreasing turnover (Fox, 2010). The sample included 12 pairs of mentor/mentee matches from various units within a Catholic hospital. The author of this study reported that job satisfaction scores improved in 75% of the participants and that 100% of nurses participating in the mentor program were retained for a period of at least 1 year. Another study of 25 NGRNs participating in a yearlong group program that assigned mentors to NGRNs at a hospital in North Carolina found that NGRNs reported high levels of job satisfaction with working at their organization (Scott & Smith, 2008). Taken together, these findings suggest that mentor programs have the potential to positively affect NGRN job satisfaction within their first year of employment (Fox, 2010; Scott & Smith, 2008).

Intent to Stay

Evidence indicates that intent to stay is an important predictor of retention (Grindel & Hagerstrom, 2009; Rohatinsky & Jahner, 2015; Scott & Smith, 2008). Bontrager (2016)

examined the variables that predict intent to stay and reported that job satisfaction is one of the strongest predictors of intent to stay and retention. Scott & Smith (2008) suggested that when nurses are committed to their profession and are satisfied with their jobs, they have a lower tendency to leave. Grindel and Hagerstrom (2009) reported that intent to stay among nurses peaked after 12 months of participating in a mentor program. These findings suggest that, by improving jobs satisfaction, mentor programs could strengthen NGRNs intent to stay and subsequently improve retention rates (Bontrager, 2016; Grindel & Hagerstrom, 2009; Rohatinsky & Jahner, 2015; Scott & Smith, 2008).

Turnover

Turnover of NGRNs is a known problem in hospitals (Kovner, Brewer, Fatehi, & Jun, 2014). To better retain NGRN, the focus of programs is to promote the ongoing development of new graduate nurses, and to stabilize and ensure an adequate nursing workforce in the future (Grindel & Hagerstrom, 2009; Halfer et al., 2008). Several studies (n=7) indicate that mentoring facilitates the transition of new graduate nurses into the workplace and increases retention by decreasing stress and promoting positive self-esteem and confidence (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Halfer et al., 2008; Latham et al., 2011; Mills & Mullins, 2008; Schroyer et al., 2016). In particular, one study of a mentor program in a neonatal intensive care unit reported that new graduate nurse turnover decreased from 20% to 7% within the first year of hire (Faron & Poeltler, 2007). These findings suggest that implementation of a mentor program may reduce NGRN turnover (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Halfer et al., 2008; Latham et al., 2011; Mills & Mullins, 2008; Schroyer et al., 2016).

Belongingness

Belongingness represents a pervasive and universal human need to feel connected to and a part of a group (Levett-Jones, Lathlean, Higgins, & McMillan, 2009). When individuals' feel a sense of belongingness in their work group, they feel cared about, and valued and respected by others (Winter-Collins & McDaniel, 2000). In turn, someone who feels a sense of belongingness to a group accepts, cares for and values others in the group (Levett-Jones, Lathlean, McMillan, & Higgins, 2007).

Only one study of a NGRN mentor program examined NGRNs sense of belongingness on their unit (Burr et al., 2011). Burr et al. (2011) conducted a cohort study to examine the effects of a nurse mentor program on nurse retention in a 169-bed tertiary care hospital for women and newborns. The formal 12-month program matched mentees (new graduates, newly hired RNs, or RNs new to a specialty area) with an experienced mentor. The program included monthly 1-hour formal mentor-mentee meetings. At the end of one year, the mentees completed a formal written evaluation that measured qualitative and quantitative data. One of the 11 questions asked if the mentor program helped the NGRN have a strong sense of belonging on their unit. Unfortunately, this study did not use a scale to measure belongingness or report specific findings on the question that was asked. The study did report that reduction in turnover rates from 20% to 7%, which led to substantial savings of more than $300,000 after the first year of implementation.

Belongingness has been examined as an outcome of clinical placements for nursing students (Levett-Jones, Lathlean, Higgins, & McMillian, 2008), and undergraduate midwifery students (McKenna et al., 2012). Levett-Jones et al. (2008) examined the variables that influence nursing students' sense of belonging in the clinical environment. This study found the duration

and organization of clinical placements to be important factors that affect nursing students' belongingness. Similarly, McKenna et al. (2012) examined the variables that influence undergraduate midwifery sense of belongingness in their clinical placements. Results of this study suggest that several factors influence sense of belonging for undergraduate midwifery students. The most notable being the longer duration of the clinical placement resulted in an increased sense of belonging.

These studies suggested that belongingness is an important precursor to nursing students' learning and success (Levett-Jones, Lathlean, Higgins, & McMillian, 2008; McKenna et al., 2012). As nursing students' transition into practice, it is reasonable to assume that belongingness will continue to influence their learning and success in their professional careers. Thus, it is reasonable to believe that belongingness will be affected by the implementation of this project.

Summary

Overall, the evidence of the review of literature supports the implementation of a NGRN mentor program. The findings from the research studies reviewed validate the positive organizational impacts of a NGRN mentor program through reduced NGRN turnover. While not specifically examined among NGRN mentor programs, belongingness is known to improve job satisfaction, and is associated with decreased NGRN turnover in general. Thus, belongingness may be a better indicator of the success of a NMP that other outcomes examined in previous studies.

Theoretical Framework

The framework for this project was based on Patricia Benner's adaptation and application of Dreyfus' model of skill acquisition for nurses. The Dreyfus model, first proposed in 1980, assesses an individual's needs at different stages of professional growth (Dreyfus & Dreyfus,

1980; Dreyfus & Dreyfus, 1986). Dreyfus and Dreyfus (1980) originally described the stages of skill acquisition as novice, competent, proficient, expert and master. The stages were later renamed novice, advanced beginner, competent, proficient, and expert (Dreyfus & Dreyfus, 1986). In 1984, Patricia Benner adapted and applied Dreyfus's five levels of competency to explain an individual's acquisition of nursing knowledge relative to their nursing practice (Altmann, 2007; Benner, 1984).

Patricia Benner's novice to expert model describes how nurses acquire skills through situational experiences (Altmann, 2007; Davis & Maisano, 2016). It explains clinical skill acquisition and asserts that nurses develop skills and understanding of patient care over time through education and experience (Davis & Maisano, 2016; Gallegos & Sortedahl, 2015). The novice to expert model posits that individuals, while acquiring and developing skills, pass through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert (Altmann, 2007; Davis & Maisano, 2016; Longo et al., 2013). Each level reflects movement from reliance on past abstract principles to the use of past concrete experiences (Benner, 1984). Benner (1984) described the individual's progression at each level as being guided by clinical experience and knowledge development. She hypothesized that expertise in nursing was influenced by relevant experience as well as associated factors, such as learning styles and educational opportunities, all over a period of time (Benner, 1984).

Benner, Tanner, and Chesla (2009) later described the novice as someone who still requires a mentor or experienced nurse to assist them in integrating practical knowledge, defining situations, and setting priorities into their practice. According to Benner (1984), when a nurse takes on a new role, they become novice again. A NGRN is a novice because they lack experience working as a professional nurse and have limited abilities to recognize changes in

patient status or predict what might happen in a particular patient situation (Carlson, Crawford, & Contrades, 1989; Gallegos & Sortedahl, 2015). For novice nurses to develop skills and progress through Benner's levels of proficiency, a mentor can help guide their clinical progression and support them as they experience and attempt to comprehend new clinical situations (Benner et al., 2009; Davis & Maisano, 2016; Ulrich et al., 2010). The use of a mentor is an intervention that can cultivate support and socialization of NGRNs in an organization (Fox, 2010; Rohatinsky & Jahner, 2015). The formation of an emotional commitment between a novice (mentee) and experienced (mentor) nurse is essential for a successful mentoring relationship (Hnatiuk, 2013). While a mentor is the individual who nurtures and supports the NGRN during their early employment period; the act of mentoring assumes a level of knowledge and competence, in which teaching and learning is enacted through a sharing of advice or expertise, the fostering of role development, and the offering of formal and informal support to influence the career of the NGRNs (Hnatiuk, 2013). Thus, the mentor-mentee relationship can help the NGRN to progress through Benner's novice to expert levels.

Chapter Summary

This chapter presented a synthesis of the literature surrounding NGRN mentor programs. Evidence in the literature supports the implementation of a nurse mentor program. Findings from the literature suggest that programs that assign mentors to NGRNs positively impact NGRN outcomes, including job satisfaction and intent to stay, and also decreased turnover. The chapter also presented Patricia Benner's novice to expert model, which served as a framework for this project. The next chapter presents the methods and approaches that were used to implement the NGRN mentor training program.

CHAPTER 3

METHODOLOGY

Chapter Introduction

The aim of this project was to implement a mentor training program that improved NGRNs' sense of belongingness, as reflected in changes assessed from pre- to post-implementation. The following sections describe the project design, project setting, key stakeholders, target population, description of the intervention, and data analysis for this project.

Design

This Doctoral of Nursing Practice project utilized the Plan-Do-Study-Act (PDSA) cycle to implement a quality improvement project that utilized a one group, pretest-posttest design, to determine if NGRNs' sense of belongingness and turnover change following participation in a NGRN mentor program that paired NGRNs with trained mentors. This design was chosen to guide evaluation of the mentor program and the impact of the NMP on specified outcomes (LoBiondo-Wood & Haber, 2010). In this project, the NMP was anticipated to change NGRN's sense of belongingness and affect the NGRN turnover rate.

Setting

UNC REX Healthcare (REX) is a private, not-for-profit, acute care community hospital that is part of the UNC Healthcare System (UNC REX Healthcare). REX was the first hospital in the triangle area to receive Magnet® Recognition, and has been named several times as one of the top 100 Best Places to Work in Healthcare (UNC REX Healthcare). REX has 439 inpatient

beds and employs more than 6,400 staff members, including more than 1,800 staff nurses (J. Aucoin, personal communication, January 10, 2019). REX hires approximately 60 NGRNs per year, and the NGRN turnover rate in the first year of hire has fluctuated from 4% of NGRNs hired during calendar year 2013, to 12% of NGRNs hired during calendar year 2015, and 0% of NGRNs hired during calendar year 2016 (K. Pollara, personal communication, April 27, 2017).

The current orientation process for NGRNs at REX includes 12 weeks of orientation with a unit-based preceptor, in conjunction with ongoing education offered through the *Successful Transitions program* (G. Jackson, personal communication, June 2, 2017). This NGRN residency program is a year in length and consists of eight classes covering the following topics: management of changing patient conditions, informatics and technology, management and delivery of quality patient care, patient and family centered care, incivility, resilience, delegation, and mock codes (G. Lorenzi, personal communication, June 1, 2017). NGRNs are required to attend at least six out of eight classes throughout the year.

In an effort to improve NGRN retention and address a key recommendation for NGRN residency programs, a NGRN mentor program was initiated at REX in December of 2016. The NGRN mentor program was introduced to the managers and directors at REX in a leadership meeting on September 8, 2016. Managers were asked to identify mentors on their units and submit their names to the nurse educators by the first week in October 2016 (G. Jackson, personal communication, September 23, 2016). In all, 47 RNs were recruited to serve as mentors and 30 out of 36 NGRNs chose to participate in the program (G. Jackson, personal communication, February 16, 2017).

The NGRN mentor program was voluntary and began at the end of the NGRNs 12-week orientation period. The NGRNs were allowed to self-select mentors or allow the program advisor

to match them with a mentor. The advisor coordinated the matching process using a questionnaire that assessed the following characteristics of mentors and mentees: shift, current specialty area, specialty interest, career goals, age/generation, and outside interests (G. Jackson, personal communication, September 1, 2016). Unfortunately, there was no formalized process to educate and prepare mentors for their roles as part of this program. Mentors and mentees were expected to meet monthly and were compensated for one hour of their base salary to cover their meeting time. Other than submission of time for compensation, there was no other means of tracking ongoing mentor-mentee meetings or mentor-related progress. Planned outcome measures for the program, prior to project implementation, included a NGRN belongingness survey conducted prior to the initiation of the program, administered periodically during the program and at the conclusion of the program (G. Jackson, personal communication, September 1, 2016). Results of these surveys were not disclosed to the PI.

Key Stakeholders

The key stakeholders for this project were NGRNs, NGRN mentors, nurse managers, clinical directors, the Chief Nursing Officer, and the program advisor for the NGRN program prior to the initiation of this project. To understand the needs of mentors and to design an appropriate project, a needs assessment survey that was created by the PI (Table 1) was distributed via email to former NGRN mentors at REX on June 2, 2017. Six out of 30 former mentors (20%) responded. These stakeholders expressed that they enjoyed their roles as mentors. Three of the six stakeholders never met with their mentees due to busy schedules and work conflicts, and requested that the mentor-mentee matching be improved. One mentor found the

process that existed at that time "confusing" and felt that more guidance and information about the expectations of the mentor role would be beneficial to cover in a training program.

Table 1 Mentor Program Needs Assessment Survey
1) What is working well about the mentoring component of the new graduate RN orientation program?
2) What needs improvement?
3) If you could change one thing about the mentoring component of the new graduate RN program, what would it be?
4) If we were to implement a training program for mentors, what topics would you find most beneficial?

On January 25, 2018, three and a half months prior to the launch of this project, the PI made an announcement at the nurse leadership council, comprised of REX's nurse managers, clinical directors, and the Chief Nursing Officer to gain leadership buy-in for the mentor education component of the NMP. This announcement provided the nurse leaders with a brief overview of the mentor education plan, and planned outcome measures. The process for recruiting nurse mentors did not change from the current program. The leadership team shared their support of this project and agreed to continue to help recruit mentors from their respective units.

On March 21, 2018, the PI attended a Successful Transitions class and the Professional Development Council meeting to introduce the project to NGRN winter cohort and the nurse educators. The NGRNs expressed their excitement about the opportunity to participate in a mentor program and the nurse educators shared that they supported this project and wanted to hear about the outcomes once the project was completed.

Target Population

The target population for this project included nurse mentors (n=41) and all NGRNs (n=31) in the winter 2018 cohort, defined as a REX hire date between January 16 and March 13,

2018. NGRNs were hired at REX on a continual basis. NGRN cohorts were identified by the time of year in which they were hired.

Description of Intervention

This project was designed to improve the current NGRN nurse mentor program at REX by implementing a formalized process to educate and prepare mentors for their roles, guided by Benner's framework as described earlier (Benner, 1982). For the purpose of this project, the mentor/mentee relationship focused solely on the novice stage when NGRNs need the most guidance in their first nursing jobs. However, the relationship could be extended for as long as the mentor-mentee pair desired.

Mentor Recruitment and Matching

On February 22, 2018, the program advisor sent an email to all REX nurse managers requesting their assistance in mentor recruitment. Five days later, the PI sent a follow-up email reminding the managers to send the names of staff that they wanted to serve as mentors for the NGRN winter cohort. In all, 41 names of potential mentors were sent by nurse managers to the program advisor. On April 6, 2018, an email announcing the date, time and location of the mentor training classes was sent to all potential mentors.

On April 9, 2018, the PI and program advisor met to match the mentors and NGRNs. The program advisor provided an excel spreadsheet that contained the work unit, highest nursing degree, and work schedule of each mentor, and the shift, current specialty area, and specialty interest of each NGRN. The PI and program advisor collaborated to match the mentor-mentee pairs. When mentors and NGRNs were paired, nurses working the same or similar shift, on different work units were matched so they had the ability to plan meetings, such as during shift change.

Mentor Training Intervention

A total of 31 mentors attended a one-hour class that was developed and led by the PI. The class was offered twice, on April 11, 2018 and April 18, 2018. The class was developed by drawing on the literature about NGRN mentor programs. During the class, a slide presentation, developed by the PI integrating evidence from the literature (Appendix B), was presented to mentors. Objectives of this mentor training class were: 1) to define the role and function of a mentor; 2) to gain insight on the expectations of the mentor/mentee relationship; 3) to identify ways to start conversations and foster communications between the mentor and mentee; and 4) to explore how to set goals and priorities for the mentor-mentee experience. Education strategies included lecture, interactive group discussions, and a handout of the PowerPoint presentation.

The first 30 minutes of the training session was devoted to defining nursing mentoring, describing the types of mentor-mentee relationships, and differentiating the role of a mentor from the role of a preceptor. The next 25 minutes of the training session was devoted to discussing expectations of the mentor-mentee relationship, exploring ways to facilitate conversations and set goals, and discussing the benefits of a NGRN mentor program. The last 5 minutes were reserved for a question/answer period. At the conclusion of the class, mentors were informed that they would receive an email in early May with the name of their assigned NGRN and that they should reach out to their mentee to set up the first mentor-mentee meeting. The course outline is included (Appendix C).

On May 7, 2018, the program advisor sent an email to each trained mentor to notify them of the name and work unit of their assigned mentee. In this email, the mentors were advised to contact their assigned mentee and plan to have their initial meeting by no later than May 31, 2018. The timing of the mentor-mentee meetings did not change from the original NGRN mentor

program. Mentors and mentees were expected to meet once a month to provide the NGRNs with ongoing support, guidance, and assistance with social integration to the hospital environment.

Measurements

The survey tool was formatted and administered as a web-based survey using the Qualtrics software and housed on a Qualtrics server where anonymous responses were collected. Participants in this project were the 31 NGRNs from the winter 2018 cohort. Email addresses for the 31 NGRNs were provided by the program advisor for one time use to enter into Qualtrics. The PI did not retain any written or electronic copy of the NGRN email addresses after the Qualtrics survey was distributed.

At the completion of their 12-week clinical orientation and prior to their initial meeting with their assigned mentors, all NGRNs in the winter cohort were asked to complete a modified version of the Belongingness Scale-Clinical Placement Experience survey (BSCPE). The survey was opened on April 30, 2018, which was the approximate end date of the NGRN clinical orientation. The survey remained open for two weeks. Reminders to complete the survey were sent at one week, and three days prior to the survey closing. The survey closed on May 14, 2018.

At the end of three months, NGRNs were asked to complete the modified BSCPE survey a second time. The survey opened on August 20, 2018 and remained open for two weeks. Reminders to complete the survey were sent at one week and three days prior to the survey closing. The survey closed on September 3, 2018. This project was evaluated based on: 1) changes in NGRNs responses to the modified BSCPE; and 2) changes in the percentage of NGRN turnover during the first six months of hire, relative to the first six months of hire from the previous year's cohort.

Belongingness Scale-Clinical Placement Experience

NGRN perceptions of belongingness were measured before NGRNs began the NMP (three months after hire), and after NMP implementation (six months after hire) using a modified version of the BSCPE (Levett-Jones, Lathlean, Higgins, & McMillian, 2008; Levett-Jones et al., 2009). Researchers who previously used a modified version of this tool were contacted (see Appendix D for the researchers contacted) to gather information about their surveys and to ask for permission to use and modify their surveys. Permission to use and modify the BSCPE survey was obtained from Dr. Levett-Jones on May 9, 2017 (Appendix E).

The BSCPE survey was originally developed to measure nursing students' perceptions of belongingness in their clinical placements (Levett-Jones et al., 2009). This instrument is a 34-item self-reported survey that uses a five-point Likert scale to measure nurses' sense of belongingness in the clinical environment. Responses range from 1 *never true*, 2 *rarely true*, 3 *sometimes true*, 4 *often true*, and 5 *always true*. Four items are negatively worded and were reverse scored. The survey is composed of three sub-scales: esteem (feeling secure, included, valued, and respected by others); connectedness (feeling part of or integral to the group, being accepted, and fitting in); and efficacy (confidence in one's ability to perform tasks or skills, accomplish goals, or control actions or outcomes) (Levett-Jones et al., 2009).

The mean score for each sub-scale is used to determine the extent to which participants experience belongingness (Levett-Jones et al., 2009). A higher mean score indicates a higher sense of belongingness. Levett-Jones et al. (2009) established BSCPE construct validity and reported a Cronbach's alpha of 0.92, which is indicative of high reliability. For the purpose of this project, it was necessary to modify the BSCPE survey (Appendix F) to place emphasis on nurses' work units, rather than clinical placements.

Turnover Rate

The turnover of NGRNs is an important outcome to assess in determining the impact of this intervention. Turnover rate represents the number of employees who left an organization over a defined period of time, divided by the total number of employees during that same time period (Jones, 2005; Kovner et al., 2014; Society for Human Resource Management, 2015).

NGRN turnover rates on project units were obtained from the human resources department at the project implementation site. This site calculates NGRN turnover rates annually by dividing the number of NGRN terminations during the year by the total number of NGRNs hired in that same year's class of NGRNs (K. Pollara, personal communication, May 11, 2017). Since this project focused on NGRN cohorts, the turnover rate was calculated by dividing the number of NGRN terminations in a specific cohort by the total number of NGRNs hired into that cohort.

Data Analysis

Data on NGRNs' sense of belongingness were collected pre- and post-implementation of the NMP. Data were analyzed using IBM SPSS Statistics statistical software, version 25. A total of 17 NGRNs (55%) participated in this project. A paired *t-test* was used to compare the NGRNs' sense of belongingness at the beginning of the NGRNs mentor program (time 1) and at the 3-month interval of the program (time 2). The *t-test* is used to test the difference between two groups to determine statistical significance (Hulley, Cummings, Browner, Grady, & Newman, 2013). The pre and post-intervention scores for the three subscales of the BSCPE (esteem, connectedness, and efficacy) were analyzed using a paired samples t-test (significance level ($p < .05$) to determine significance differences. The NGRN turnover rate was collected at the end of

the project period (six months after initial hire) and compared to the six-month NGRN turnover rates from the previous year's (2017) cohort.

Protection of Human Subjects

Prior to implementation, this project was reviewed by the Institutional Review Board at the University of North Carolina at Chapel Hill and deemed exempt from further review (Appendix G). All NGRNs in the winter 2018 cohort were sent an email that informed them about the project and contained an anonymous link to the survey (Appendix H). Participation was voluntary and the participants' identity was protected using participant-generated identification codes at the end of each survey. These codes allowed the PI to link pre- and post-intervention data for each participant without knowing the participants identity (Damrosch, 1986).

Chapter Summary

This chapter presented the methods used to develop and implement the NGRN mentor training project and the analysis used to assess the results of the intervention. The next chapter describes the data collected pre- and post- intervention.

CHAPTER 4

RESULTS

Chapter Introduction

This chapter presents the results of this project. In particular, comparison data from the NGRNs' pre-intervention and post-intervention BSCPE survey results and turnover rate. The comparison data in this chapter will focus on the aim of this project.

Participants

De-identified demographic information on the NGRN winter cohort (n=31) was provided to the PI by the program advisor (Table 2). The majority of the cohort was female (90.3%), had a BSN (58%), and worked in various units throughout the hospital, including medical units (n=8), combined medical/surgical units (n=8), intensive care units (n=2), perioperative services (n=4), the woman's center (n= 4), cardiac services (n=3), and the emergency room (n=2).

Table 2

Characteristics	*n*	Percent
Gender		
Male	3	9.7
Female	28	90.3
Highest Nursing Degree		
ADN	13	41.9
BSN	18	58.1
Work Unit		
Medical	8	25.8
Medical/Surgical	8	25.8
Intensive Care	2	6.5
Perioperative Services	4	12.9
Women's Center	4	12.9
Cardiac Services	3	9.6
Emergency Room	2	6.5

Results

Belongingness. Seventeen of the 31 NGRNs completed the initial BSCPE survey, and nine NGRNs completed the second survey. These responses represent a 55% response rate at time 1 and a 29% response rate at time 2. All respondents provided a unique code by which the first and second surveys could be paired for analysis. A paired t-test was used to compare the means of pre- and post-BSCPE subscales. Results are shown in Table 2. The mean scores for all three subscales (esteem, connectedness, and efficacy) had declined at time 2, but these changes were not statistically significant ($p = .05$). However, the results of this analysis for the esteem scores was close to significance ($p = .072$).

Table 3

Paired Samples t test

Pairs	Mean	t	df	Sig. (2-tailed)
Esteem Time 1	3.935	2.073	8	.072
Esteem Time 2	3.444			
Connectedness Time 1	3.417	.263	8	.799
Connectedness Time 2	3.319			
Efficacy Time 1	4.064	.250	8	.809
Efficacy Time 2	4.016			

Turnover. The human resources department at REX reported that the six month turnover rate for NGRNs in the winter 2018 cohort was three out of 32 NGRN's (9.37%) compared to two out of 36 NGRNs (5.54%) for the winter 2017 cohort (J. Aucoin, personal communication, January 28, 2019). This rate represents a 3.83% increase in NGRN turnover within the first six months of hire, for NGRNs in two successive annual cohorts. However, this rate reflects only one more turnover than the previous cohort. The reasons for leaving given by the three winter 2018 NGRNs (provided by a manager in the workforce development and strategy department)

were described as: 1) personal reasons; 2) a desire to stay at home; and 3) unable to meet job requirements (K. Pollara, personal communication, November 15, 2018).

Intervention Sustainability

A quality improvement process check was completed by sending a follow-up survey to the 31 mentors that participated in this program. The survey, shown in Table 4, was modeled after the needs assessment survey that was sent to key stakeholders prior to the implementation of this project.

Table 4 Mentor Program Follow-up Survey
1) What worked well about the mentor training class you attended?
2) What didn't go well or can be improved?
3) What will you do differently now?
4) How will you share lessons learned with others?

Eight of the 31 mentors responded to the survey. All eight of the mentors felt that the mentor training class was beneficial. Three mentors felt that the training class helped outline the expectations for their mentor role, and what they could expect during the mentoring experience. Two mentors reported that they attempted to contact their mentee and never received a response. Two other mentors did not feel that the mentor/mentee assignment was appropriate because they worked on shifts opposite to their mentees, which made it difficult to find a time to meet. The remaining four mentors felt that their assignment was appropriate. Two mentors recommended that the mentor/mentee matching process be improved, and one mentor suggested that NGRN orientation include content about working with a mentor and meeting expectations of the mentor-mentee relationship to avoid behaviors such as being late for mentor-mentee meetings.

Discussions are underway to disseminate project findings to hospital leaders and educators. The outcomes of these discussions will focus on utilizing the results of this project to

further improve the NGRN mentorship program at REX. Sustainability of this project will depend on the commitment of the organization. The program will require an instructor to teach mentor-training classes and someone to coordinate and check in with the mentor/mentee pairs to ensure that their respective expectations are being met, and that mentor-mentee meetings are occurring.

Chapter Summary

This chapter presented the results of the analysis of BSCPE data, gathered before and after the implementation of this mentor training project, as well as six-month turnover rates for the 2018 winter cohort, compared with the same cohort from 2017. Pre- and post-intervention BSCPE data were compared using a paired t-test. No significant changes were detected in any of the three BSCPE subscale scores, as reported by NGRN participants. Turnover data revealed a difference in six-month NGRN turnover rates between winter NGRN cohorts in 2017 to 2018; however, conclusions cannot be drawn based on these differences due to the small NGRN numbers. The next chapter will discuss the results and their implications on clinical practice.

CHAPTER 5

DISCUSSION

Chapter Introduction

This chapter presents an overall discussion of the project and conclusions that were drawn, based on the results of this project. A discussion of how findings might inform future organizational practices will also be discussed. Recommendations for clinical practice, future mentor training and NGRN projects, project limitations, and final conclusions of the project are also provided in this chapter.

Discussion

The purpose of this evidence-based quality improvement project was to foster a sense of belongingness among NGRNs through the implementation of a mentor training program for Registered Nurses serving as mentors for NGRNs. A group of 31 nurse mentors, recruited by their nurse managers, attended a one-hour mentor training class to introduce them to the role of mentor, and the expectations for being a NGRN mentor. The mentors were instructed to meet with their assigned NGRN mentees monthly to provide guidance and support.

The primary outcome of interest in this mentor training project was to improve NGRNs' sense of belongingness. The NGRNs' perception of belongingness was measured before and three months after the implementation of the NMP, and the NGRNs turnover rate was collected at the end of the project period (6 months from hire). None of the three subscales of the BSCPE (esteem, connectedness, and efficacy) were statistically significantly different, although there was a decrease in mean scores for all 3 measures. The decrease in the subscale mean of esteem

approached statistical significance ($p = .072$), but nevertheless, the finding indicates no change in NGRNs' sense of belongingness. The decrease in esteem reported by NGRNs was not surprising, given that the literature indicates NGRNs tend to start out with a relatively high self-esteem and confidence that decreases significantly after six months of hire (Goode, Lynn, McElroy, Bednash, & Murray, 2013). This finding suggests that NGRNs likely need support beyond six months of entering a NGRN role, and that a measure of belongingness taken at some point later (e.g., one year) may be different than at the six month point. Although assessing belongingness in the 2017 NGRN cohort was not a part of this project, it should be noted that the means of the other subscales (connectedness and efficacy) did not change significantly, suggesting that the nurse mentor program may have had an impact.

Although there was a total of three turnovers in the winter 2018 NGRN cohort who left the organization within six-months of hire, this number increased by only one NGRN turnover from the prior year's cohort. Resigning NGRNs primarily reported personal versus work related reasons for departing from the organization. However, a more thorough understanding of these departures would be important to determine if an increased sense of belongingness would have prevented these NGRN resignations. The current process for capturing reasons for nurse turnover at REX is through exit interviews and in a computer program that has a list of predetermined choices from which the nurse manager on the unit of the departing NGRN to select. Exit interviews are widely used by hospitals to identify the reasons staff are leaving the organization (Webster & Flint, 2014). While exit interviews are considered a recommended component of the employee exit process, these interviews tend to be completed inconsistently in organizations and may not reflect the real reasons that individual leaves an organization. Unfortunately, an exit

interview was not completed on the three NGRNs from the winter 2018 cohort that left the organization (K. Pollara, personal communication, November 15, 2018).

Implications for Clinical Practice

Evidence suggests that NGRNs require time and mentoring during their transition to practice (Goode et al., 2013). Responding to the needs of NGRNs has potential long-term advantages for health care organizations, including decreased turnover resulting in a financial return on investment, and may influence both the quality and delivery of care (Rush et al., 2013). Hospital leaders and educators must work collaboratively to develop successful NGRN mentor programs that promote successful transition to practice. In particular, protected time for the mentor and mentee is needed to allow for ongoing mentor-mentee meetings, cultivate the mentor-mentee relationship, and create a work environment that encourages mentors and mentees to actively participate in the NGRN program.

Nurse educators are important to help train mentors and assist with mentor-mentee meeting facilitation and tracking. Lack of a reliable way of tracking that mentor-mentee meetings had occurred, other than retrospective audits of payroll records was a limitation in this project. Educators or an assigned program coordinator could periodically follow up with the mentor-mentee pair to ensure that meetings and communications were occurring between mentors and mentees (Schroyer et al., 2016).

Implications for Future Mentor Training Programs

Programs that pair NGRNs with mentors vary among healthcare organizations. Future NGRN mentor programs can draw on the findings of this project to inform the development of rigorous quality improvement approaches to monitor the implementation process. In particular, a QI project design that allows for the detection of changes in outcomes would strengthen the

approaches used in this project. There also is a need for research using longitudinal methods of such NGRN mentor programs, with greater numbers of participants conducted at multiple sites to more clearly detect the impact that a NGRN mentor program might have on NGRNs' sense of belongingness. This finding should be explored by organizations that implement NGRN mentor training programs, especially if the implementation is occurring on a larger scale. Additionally, there are currently no recognized national standards for mentor program design or mentor training. Thus, evidenced-based projects are needed to standardize mentor programs. Furthermore, the BSCPE survey utilized in this project was modified to place emphasis on nurses' work units. Therefore, it is recommended that future researchers evaluate the psychometric measures of the modified tool.

Limitations

There were several limitations of this project that are worth noting. First, it was conducted at only one hospital using a convenience sample of NGRNs and mentors that volunteered to participate in the program. Thus, project findings cannot be generalized beyond the project site. However, the purpose of this project was to implement an evidence-based intervention in a hospital setting, not to generate generalizable findings. Therefore, the convenience sample was sufficient for a beginning assessment of impact in the hospital setting.

Second, the project examined a single cohort of 31 NGRNs in the mentor program. The project's small sample size may have prevented any difference to be detected between measurements. In particular, the rates of turnover could not be compared statistically and specific conclusions, beyond the slight difference in numbers, could not be drawn. A project with more subjects might have had a greater likelihood of detecting improvements in NGRN turnover rate and sense of belongingness.

Third, the project followed these NGRNs for only three months. The majority of studies on NGRN mentoring programs follow the NGRNs for a period of at least a year (Burr et al., 2011; Faron & Poeltler, 2007; Fox, 2010; Grindel & Hagerstrom, 2009; Halfer et al., 2008; Scott & Smith, 2008). Having only 90 days between the implementation of this program and allowing for time for only three mentoring meetings to occur may be insufficient to yield meaningful findings.

Finally, there was no method to track compliance with or adherence to monthly mentor/mentee meetings, and there was no way to differentiate the survey results of NGRNs who met with mentors on a monthly basis, versus those who did not meet with their mentors at all. Thus, the results might not accurately portray results of all NGRN mentor programs. It would have been ideal to follow multiple cohorts and track mentor/mentee meetings for at least a year to determine if participation in a mentor program improves the NGRNs sense of belongingness.

Conclusions

The United States is currently in the midst of a nursing shortage that is only expected to intensify as society ages and health care needs continue to grow (American Association of Colleges of Nursing [AACN], n.d.). According to the U.S. Department of Labor (2018) the United States will need to expand the RN workforce by 15% in order to meet the country's healthcare demands. Because of this, the recruitment and retention of NGRNs in hospital settings have become primary foci for nursing leaders (Halfer et al., 2008).

Mentor programs have been validated in the literature as a strategy to help retain NGRNs (Fox, 2010; Mills & Mullins, 2008). The use of mentors has been an effective strategy for nurturing NGRNs during their initial employment period, and in the increasingly stressful and challenging health care work environment (Schroyer et al., 2016). A mentor program can help

the new graduate nurse develop self-confidence, competency, and professional satisfaction, which can result in lower turnover rates (Mills & Mullins, 2008). Although there is no national standard for mentor programs, mentor programs that do exist are generally tailored to meet the needs of NGRNs and the organizational context where they are implemented.

This project was based on Patricia Benner's novice to expert model to develop and implement a mentor training program for RNs serving as mentors, to foster a sense of belongingness among NGRNs at UNC REX Healthcare. While the there was no change in NGRNs' sense of belongingness, findings provide some insights that a NGRN mentor program may produce positive outcomes if studied on a larger scale.

APPENDIX A: LITERATURE REVIEWED SPECIFIC TO THE PROJECT

Study	Location	Purpose	Design	Sample Size	Duration	Intervention	Outcome Measures
Burr et al. (2011)	California	Implementation of a new registered nurse mentor program to improve nurse retention.	Quasi-experimental study	Undisclosed	1 year	1. Mentors and mentees receive initial training at a 3-hour orientation 2. Pairs were required to participate in monthly 1-hour formal mentor-mentee meetings 3. Mentor/mentee pairs received support from designated unit representatives, mentor program lead, and monthly e-mail mentor tips 4. Mentor/mentee match process was not disclosed	1. Program evaluation that includes perceived sense of belonging 2. Turnover 3. Return on investment
Faron and Poeltler (2007)	California	Implementation of a new registered nurse mentor program to facilitate successful	Quasi-experimental study	87 mentee/mentor pairs (57 NGRNs)	1 year	1. Four-hour orientation program for mentors 2. Two-hour educational support program for both	1. Turnover rate 2. Return on investment 3. Written feedback from program

		transition into the organization.				mentors and mentees 3. Monthly meetings between mentors and mentees and informal meetings with a program coordinator 4. Mentor/Mentee match process was not disclosed	participants at 6 months and at the end of 1 year
Fox (2010)	Indiana	Implementation of a pilot mentor program for first year registered nurses to improve job satisfaction and turnover rates.	Quasi-experimental study	n = 12 NGRNs	1 year	1. Nurse managers selected and matched mentors based on degree, shift, personality type and age groups 2. Mentors and NGRNs attended orientation together 3. All participants were required to sign1 year contract 4. Required 4 to 6 week check-in on progress and 6 to 9 month celebration lunch to discuss what was working and what was not working	1. Turnover 2. Job satisfaction

Grindel & Hagerstrom (2009)	Several states throughout the USA	Implementation of a 12-month mentor program for new nurses to improve jobs satisfaction, confidence and intent to stay.		n = 226 (107 mentees and 119 mentors)	1 year	1. Site coordinators at each hospital were appointed 2. Site coordinators matched mentor/ Mentee pairs, provided orientation for the mentors and mentees, and assisting in collection of evaluation data 3. Mentors and mentees were given information on how to conduct their first meetings and ways to initiate conversations 4. Evaluation materials were collected four times over the 12- month period.	1. Intent to stay 2. Job satisfaction 3. New Nurse Confidence Scale 4. Mentor and Mentee satisfaction with N3 program 5. Mentor and mentee satisfaction with relationship

Halfer et al. (2008)	Illinois	To compare job satisfaction and retention rates of two cohorts of new graduate nurses: one before and one after the implementation of a Pediatric RN Internship Program that incorporated mentor	Quasi-experimental study	n = 296 (Pre-implementation= 84 NGRNs; Post-implementation= 212 NGRNs)	1 year	1. Pediatric RN Internship Program that incorporated mentors for NGRNs 2. Mentor/mentee match process was not disclosed 3. A job satisfaction survey was mailed to both groups of participants at 3, 6, 12, and 18 months corresponding with the NGRNs time on the job	1. Job satisfaction 2. Turnover rate

Latham, Ringl, & Hogan (2011)	2 southwestern U.S. hospitals	To improve the health care workforce by implementing a nurse mentor program.	Quasi-experimental, noncontrol group design	n = 198 (89 mentors; 109 mentees, combination of NGRNs and experienced RNs)	3 years	1. Mentees self selected mentors after meeting them, reviewing web-based videos and written profiles 2. Mentors and mentees attended two 8-hour interactive orientation classes together 3. Mentors used self-reflection in monthly journaling to develop self-directed learning 4. Pairs were able to meet/communication via a web site, e-mail, or in person.	1. Occupational stress 2. Cultural competence 3. Turnover 4. Perceptions of the professional work environment.
Mills and Mullins (2008)	California	To implement and evaluate the impact of a pilot nurse mentor program.	Quasi-experimental study	n = 450 RNs (Combination of NGRNs and experienced nurses)	3 years	1. Sixteen-hour mentor certification training 2. Mentor and mentee matching based on shift and schedule similarity 3. Guidance during the early stages of new graduates' career with periodic meetings	1. Turnover rate 2. Return on investment 3. Job satisfaction

Schroyer et al. (2016)	Indiana	To increase RN retention in using mentors in critical care services.	Quasi-experimental, descriptive, quantitative design	n = 70 RNs (Combination of NGRNs and experienced RNs)	6 months	1. Participants were divided into 2 equal groups (mentored and non-mentored) 2. A site coordinator matched mentors and mentees 3. Mentor program was introduced at unit meeting 4. Mentors were provided an orientation to their role 5. No information on expectations and frequency of meetings was provided	1. Program satisfaction surveys 2. Turnover
Scott and Smith (2008)	North Carolina	To evaluate the effectiveness of a group mentor program for new nurses.	Quasi-experimental study	n = 25 NGRNs	1 year	1. NGRNs were assigned a mentor, that was separate from preceptor 2. Mentor/mentee match was based on common interests and values 3. Program redesigned after the 1st year to improve sustainability. 4. Final program	1. Satisfaction of program and intent to stay using focus groups and an open-ended survey format 2. Attrition 3. Job satisfaction

						included quarterly, formal group mentor meetings	

Mentorship

SHERI PHIFER

UNC SCHOOL OF NURSING

Welcome and Introductions

- Name
- What unit do you work on?
- Why do you want to be a mentor?
- Something interesting about yourself

Objectives

- Define the role and function of a mentor
- Examine expectations of the mentor/mentee relationship
- Identify ways to start conversations and how to foster communication
- Explore how to set goals for the mentor-mentee experience

Background of the Mentorship Program

What is Nursing Mentorship?

Nursing Mentorship is….

A relationship between two nurses formed on the basis of mutual respect with the common goal of guiding the nurse towards personal and professional growth

Types of Mentoring

- Informal
- Formal

Mentor Vs. Preceptor

Mentor	Preceptor
Objective listener	Educator
Voice without bias	Evaluator
Shares insights	Role-Model
Guides professional growth	Advocate
No defined timeline	Defined time commitment
Outcomes based on mentee's needs	Defined outcomes

Expectations of the Mentor/Mentee Relationship

- Meet monthly
- Keep all appointments
- Be open
- Share, learn and grow

Conversation Starters…

- Introduce yourself and ask mentee about themselves
- Ask about their academic and career plans
- Talk about your career (specifically your 1st nursing job)
- Talk about your education
- Talk to your mentee about professional associations, networking groups, or other affiliations within your field.
- Share how you have balanced personal life and career and what to expect.

Setting Goals

1. Clarify what they want to accomplish
2. Make sure their goals align with reality
3. Determine their benchmarks for success
4. Set a realistic timeline.
5. Define strategies and path to success
6. Track progress

Benefits for Mentors

- Increased career satisfaction
- Professional development

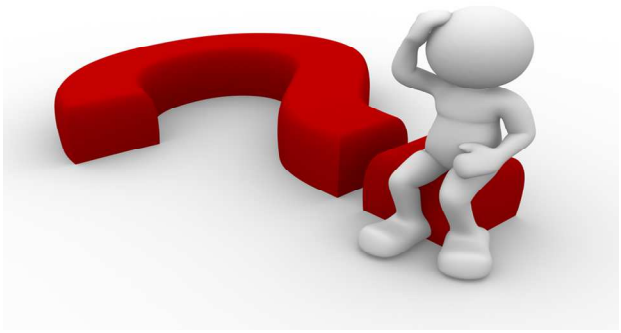
Benefits for Mentees

- Job Satisfaction
- Competency
- Social support
- Confidence
- Autonomy
- Cultural integration

Benefits for the Organization

- Decreased turnover
- Financial return on investment

Questions



References

Buffum, A. R., & Brandon, D. H. (2009). Mentoring new nurses in the neonatal intensive care unit. *Journal of Perinatal & Neonatal Nursing*, *23*(4), 357-362. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Burr, S., Stichler, J. F., & Poeltler, D. (2011). Establishing a mentoring program. *Nursing for Women's Health*, *15*(3), 214-224. http://dx.doi.org/10.1111/j.1751-486X.2011.01636.x

Fox, K. C. (2010). Mentor program boosts new nurses' satisfaction and lowers turnover rate. *Journal of Continuing Education in Nursing*, *41*(7), 311-316. http://dx.doi.org/10.3928/00220124-20100401-04

Grindel, C. G., & Hagerstrom, G. (2009). Nurses nurturing nurses: Outcomes and lessons learned. *Medsurg Nursing*, *18*(3), 183-194. Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/230522862?accountid=14244

Halfer, D., Graf, E., & Sullivan, C. (2008). The organizational impact of a new graduate pediatric nurse mentoring program. *Nursing Economics*, *26*(4), 243-249. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu/ehost

Kanaskie, M. L. (2006). Mentoring- A staff retention tool. *Critical Care Nursing Quarterly*, *29*(3), 248-252. Retrieved from http://vb3lk7eb4t.search.serialssolutions.com.libproxy.lib.unc.edu

References

Komaratat, S., & Oumtanee, A. (2009). Using a mentorship model to prepare newly graduated nurses for competency. *Journal of Continuing Education in Nursing*, *40*(10), 475-480. http://dx.doi.org/10.3928/00220124-20090923-02

McKenna, L., Gilmour, C., Biro, M. A., McIntyre, M., Bailey, C., Jones, J., ... McLelland, G. (2012). Undergraduate midwifery students' sense of belongingness in clinical practice. *Nurse Education Today*, *33*(8), 880-883. http://dx.doi.org/10.1016/j.nedt.2012.09.009

Mills, J. F., & Mullins, A. C. (2008). The California nurse mentor project: Every nurse deserves a mentor. *Nursing Economics*, *26*(5), 310-315. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Robitalle, P. (2013). Preceptor-based orientation programs for new nurse graduates. *AORN Journal*, *98*(5), C7-C8. https://doi.org/10.1016/S0001-2092(13)01080-6

Tourigny, L., & Pulich, M. (2005). A critical examination of formal and informal mentoring among nurses. *Health Care Manager*, *24*(1), 68-76.

Wensel, T. M. (2006). Mentor or preceptor: What is the difference? *American Journal of Helath-System Pharmacy*, *63*(17), 1597. https://doi.org/10.2146/ajhp060121

APPENDIX C: COURSE OUTLINE

Title of Course: Mentoring

By the end of the class, attendees will be able to meet the following objectives:

Objective 1

Define the role and function of a mentor

a. Outline: Discuss the definition of nurse mentoring, the types of mentor-mentee relationships, and the difference between the role of a mentor and the role of a preceptor.

b. Method: Presenter provides lecture with PowerPoint presentation and facilitates group discussion with the participants.

Objective 2

Gain insight on expectations of the mentor/mentee relationship

a. Outline: Provide an overview of expectations for the mentor-mentee relationship.

b. Method: Presenter provides lecture with PowerPoint presentation.

Objective 3

Identify ways to start conversations and foster communications between the mentor and mentee

a. Outline: Discuss ways to facilitate mentoring conversations

b. Method: Presenter provides lecture with PowerPoint presentation and facilitates group discussion with the participants.

Objective 4

Gain insight on how to set goals and priorities for the mentor-mentee experience

a. Outline: Discuss the benefits of an NGRN mentor program and provide an overview on how to set goals

b. Method: Presenter provides lecture with PowerPoint presentation and facilitates group discussion with the participants.

APPENDIX D: RESEARCHERS CONTACTED

Author	Date Contacted	Survey Tool	Response
Tracy Levett-Jones	May 12, 2017	Belongingness Scale Clinical Placement Experience	Permission to use and modify tool was granted
Anna McDaniel	May 12, 2017	Modified Hagerty-Patusky Sense of Belonging Instrument	No Response
Bonnie Hagerty	May 12, 2017	Sense of Belonging Instrument	No Response
Alison Winter-Collins	May 30, 2017	Modified Hagerty-Patusky Sense of Belonging Instrument	Unable to locate her modified tool
Robin Newhouse	May 30, 2017	Hagerty-Patusky Sense of Belonging Instrument	Used original Hagerty-Patuski tool
Deb Brandon	June 1, 2017 and July 20, 2017	Survey Unknown	Unable to send anything until August because she is out of town

APPENDIX E: PERMISSION TO USE BELONGINGNESS SURVEY

From: Tracy Levett-Jones <Tracy.Levett-Jones@uts.edu.au>
Date: May 9, 2017 at 5:36:47 PM EDT
To: "Phifer, Sheri" <SHERI.PHIFER@unchealth.unc.edu>
Subject: RE: Clinical Belongingness Survey

Hello Sheri

You have my permission to use and modify the Belongingness Scale (see attached) with appropriate acknowledgment.

All the very best with your research

Tracy

Tracy Levett-Jones
Professor of Nursing Education

Discipline Lead – Nursing

Faculty of Health | University of Technology Sydney
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E tracy.levett-jones@uts.edu.au

W health.uts.edu.au

Twitter @Prof_TLJ

Blog proftlj.com

Think. Change. Do

APPENDIX F: MODIFIED BELONGINGNESS SURVEY

This survey contains a list of statements to which you will be asked to respond. Please read each statement that follows and then select the response that best indicates **how often the statement is true for you**. For example, if you eat dessert after dinner almost every night you would select '*Often True* '. If you rarely eat dessert, you would select '*Rarely True'*.

Instructions for completing the survey:

***Please answer every item**, even if one seems similar to another one.

***Answer each item quickly**, without spending too much time on any one Item.

***Think generally about your current work experiences** when considering your responses to the questions**.**

Keep in mind that the phrase **"my unit"** refers to the primary clinical/patient care unit where you work, and the word **"colleagues"** refers to clinical staff with whom you work on your work unit.

Q1. I feel like I fit in with others on my unit

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q2. It is important to feel accepted by colleagues on my unit

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q3. Colleagues on my unit see me as a competent person

- ☐ Never True
- ☐ Rarely True

- Sometimes True
- Often True
- Always True

Q4. Colleagues on my unit offer to help me when they sense I need it

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q5. I make an effort to help new nurses or other staff feel welcome on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q6. I view my unit as a place to experience a sense of belonging to a group

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q7. I get support from colleagues on my unit when I need it

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q8. I am invited to attend social events that occur outside of typical unit events by colleagues on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q9. I like the people I work with on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q10. I feel discriminated against by others on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q11. I offer to help my unit colleagues, even if they don't ask for it

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q12. It is important to me that someone on my unit acknowledges my birthday in some way

- Never True

- Rarely True
- Sometimes True
- Often True
- Always True

Q13. I invite colleagues on my unit to eat lunch/dinner with me

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q14. On my unit, I feel like an outsider

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q15. There are people that I work with on my unit who share my values

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q16. Colleagues on my unit ask for my ideas or opinions about different matters

- Never True
- Rarely True
- Sometimes True
- Often True

- ☐ Always True

Q17. I feel understood by colleagues on my unit

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q18. I make an effort when on my unit to be involved with my colleagues in some way

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q19. I am supportive of my unit colleagues

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q20. I ask for advice from my unit colleagues

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q21. People I work with on my unit accept me when I'm just being myself

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q22. I am uncomfortable attending social functions on my unit because I feel like I don't belong

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q23. When I walk up to a group on a my unit I feel welcomed

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q24. Feeling "a part of things" is one of the things I like about going to work on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q25. There are people on my unit with whom I have a strong bond

- Never True

- Rarely True
- Sometimes True
- Often True
- Always True

Q26. I keep my personal life to myself when I'm on my unit

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q27. It seems that people I work with on my unit like me

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q28. I let colleagues on my unit know I care about them by asking how things are going for them and their family

- Never True
- Rarely True
- Sometimes True
- Often True
- Always True

Q29. Colleagues notice when I am absent from work or social gatherings because they ask about me

- Never True
- Rarely True
- Sometimes True

- ☐ Often True
- ☐ Always True

Q30. One or more of my unit colleagues confides in me

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q31. I let my unit colleagues know that I appreciate them

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q32. I ask my unit colleagues for help when I need it

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q33. I like the unit where I work

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Q34. I feel free to share my disappointments with at least one of my unit colleagues

- ☐ Never True
- ☐ Rarely True
- ☐ Sometimes True
- ☐ Often True
- ☐ Always True

Identification Code: We will need to connect the responses you provide to this survey with the ones we will ask you to provide in the next survey that will be administered later this summer. In an effort to protect your privacy and keep your responses anonymous, we will use the following 5 questions to generate a personal identification code for you. You are the only person who knows this information. We can use this combination of letters and numbers to link your responses to the two surveys without having to identify you in any way.

Your responses to the next 5 questions will create your own self-generated identification code to protect your anonymity. Therefore, please CAREFULLY furnish the following information:

1. Please choose the letter below that represents the **First Letter** of your **MOTHER'S FIRST NAME:**

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F
- ☐ G
- ☐ H
- ☐ I
- ☐ J
- ☐ K
- ☐ L
- ☐ M
- ☐ N
- ☐ O
- ☐ P

- ☐ Q
- ☐ R
- ☐ S
- ☐ T
- ☐ U
- ☐ V
- ☐ W
- ☐ X
- ☐ Y
- ☐ Z

2. Please choose the letter below that represents the **First Letter** of your **FATHER'S FIRST NAME**.

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F
- ☐ G
- ☐ H
- ☐ I
- ☐ J
- ☐ K
- ☐ L
- ☐ M
- ☐ N
- ☐ O
- ☐ P
- ☐ Q
- ☐ R

- ☐ S
- ☐ T
- ☐ U
- ☐ V
- ☐ W
- ☐ X
- ☐ Y
- ☐ Z

3. How many *Older Brothers* do you have?

(both alive and deceased, step or otherwise)

4. Please choose the month in which you were born.

- ☐ January - 01
- ☐ February - 02
- ☐ March - 03
- ☐ April - 04
- ☐ May - 05
- ☐ June - 06
- ☐ July - 07
- ☐ August - 08
- ☐ September - 09
- ☐ October - 10
- ☐ November - 11
- ☐ December - 12

5. Please *choose* the letter below that represents the ***First Letter*** of **Your Middle Name**.

(If you have no middle initial, circle the letter N)

- ☐ A

- B
- C
- D
- E
- F
- G
- H
- I
- J
- K
- L
- M
- N
- O
- P
- Q
- R
- S
- T
- U
- V
- W
- X
- Y
- Z

APPENDIX G: IRB APPROVAL

From: IRB <irb_no_reply@unc.edu>

Sent: Tuesday, February 20, 2018 4:18 PM

To: Phifer, Sheri Elaine

Cc: Jones, Cheryl B.; Miller, Lisa H

Subject: IRB Notice - 17-3383

To: Sheri Phifer

School of Nursing

From: Office of Human Research Ethics

Date: 2/20/2018

RE: Determination that Research or Research-Like Activity does not require IRB Approval

Study #: 17-3383

Study Title: Implementation of a Mentor Training Program

This submission was reviewed by the Office of Human Research Ethics, which has determined that this submission does not constitute human subjects research as defined under federal regulations [45 CFR 46.102 (d or f) and 21 CFR 56.102(c)(e)(l)] and does not require IRB approval.

Study Description:

Purpose: To implement a mentor training program that fosters a sense of belongingness among new graduate registered nurses (NGRNs) at UNC REX Healthcare

Participants: The participants in this project will include all NGRNs hired at REX hospital during February 2018 and their assigned mentors.

Procedures (methods): This project will use a one group, pretest-posttest design to examine if NGRN sense of belongingness and turnover change following participation in a NGRN mentorship program.

Please be aware that approval may still be required from other relevant authorities or "gatekeepers" (e.g., school principals, facility directors, custodians of records), even though IRB approval is not required.

If your study protocol changes in such a way that this determination will no longer apply, you should contact the above IRB before making the changes.

CC:

Cheryl Jones, School of Nursing

Lisa Miller , School of Nursing Deans Office IRB Informational Message - please do not use email REPLY to this address

APPENDIX H: INTRODUCTION EMAIL TO PARTICIPANTS

Dear New Graduate Nurse,

I would like to thank you for participating in the Nurse Mentorship Program here at UNC REX Healthcare. As a reminder, I am a Doctor of Nursing Practice student at the University of North Carolina at Chapel Hill. You are invited to participate in an evidence-based quality improvement project. This project will fulfill some of the requirements necessary for my degree completion. The purpose of my project is to improve the new graduate mentorship program to help create a sense of belongingness among new graduate registered nurses employed at UNC REX Healthcare.

Earlier this year, you were paired with a nurse that was trained to serve as your mentor. You and your mentor should have meet monthly and you were invited to complete this survey at survey at the beginning of the Nurse Mentorship Program. It is now the 3-month point following initiation of the Nurse Mentorship Program, and you are invited to complete this survey again. This survey will take approximately 10 minutes for you to complete. Your participation in the survey is voluntary. Your responses will be anonymous and all results will be reported only as aggregate (group) data; no personally identifying information will be reported. The aggregate results from the project will be shared more broadly, in written and oral presentations.

This project has been reviewed by the Institutional Review Board at the University of North Carolina at Chapel Hill and deemed exempt from further review. If you have any questions about my project or the survey, please contact me at 919-907-8712, or my Project Chair, Dr. Cheryl Jones at 919-966-5681.

By opening the survey link below, you are indicating that you have read this introduction and agree to participate in this survey.

Sincerely,

Sheri Phifer, BSN, RN, CCRN-K, NE-BC
The University of North Carolina at Chapel Hill
DNP Student

Follow this link to the Survey:
https://unc.az1.qualtrics.com/jfe/form/SV_1S42LDvBkdlE6Md

REFERENCES

AL-Dossary, R., Kitsantas, P., & Maddox, P. (2014). The impact of residency programs on new nurse graduates' clinical decision-making and leadership skills: A systematic review. *Nurse Education Today*, *34*(6), 1024-1028. https://doi.org/10.1016/j.nedt.2013.10.006

Altmann, T. K. (2007). An evaluation of the seminal work of Patricia Benner: Theory or philosophy. *Contemporary Nurse : A Journal for the Australian Nursing Profession*, *25*(1), 114-123. http://dx.doi.org/10.5172/conu.2007.25.1-2.114

American Nurses Association. (n.d.). ANA request for proposals: Mentoring programs for nurses. Retrieved from http://www.nursingworld.org/DocumentVault/NewsAnnouncements/ANA-Demonstration-Mentoring-Program-Memo.pdf

American Association of Colleges of Nursing. (n.d.). Nursing shortage fact sheet. Retrieved December 3, 2018, from https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Shortage

American Nurses Association. (2014). Increased investment needed to produce 1.1 million RNs, head off nursing shortage . Retrieved from http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/workforce/Increased-Investment-Needed-to-Produce-11-Million-RNs-Head-Off-Nursing-Shortage.pdf

Barr, P. (2014). Baby boomers will transform health care as they age. Retrieved from http://www.hhnmag.com/articles/5298-Boomers-Will-Transform-Health-Care-as-They-Age

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundimental human motivation. *Psychological Bulletin*, *117*(3), 497-529. https://doi.org/10.1037/0033-2909.117.3.497

Benner, P. (1982). From novice to expert. *The American Journal of Nursing*, *82*(3), 402-407. Retrieved from https://www.medicalcenter.virginia.edu/therapy-services/3%20-%20Benner%20-%20Novice%20to%20Expert-1.pdf

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park, CA: Addison-Wesley.

Benner, P., Tanner, C., & Chesla, C. (2009). *Expertise in nursing practice: Caring, clinical judgment and ethics* (2nd ed.). New York, NY: Springer.

Berwick, D. M., Nolan, T. W., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, *27*(3), 759-769. http://dx.doi.org/10.1377/hlthaff.27.3.759

Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. *Annals of Family Medicine*, *12*(6), 573-576. http://dx.doi.org/10.1370/afm.1713

Bontrager, S. (2016). The role of preceptorship and group cohesion on newly licensed registered nurses' satisfaction and intent to stay. *Journal of Continuing Education in Nursing*, *47*(3), 132-139. http://dx.doi.org/10.3928/00220124-20160218-09

Brewer, C. S., Kovner, C. T., Greene, W., Tukov-Shuser, M., & Djukic, M. (2011). Predictors of actual turnover in a national sample of newly licensed registered nurses employed in hospitals. *Journal of Advanced Nursing*, *68*(3), 521-538. http://dx.doi.org/10.1111/j.1365-2648.2011.05753.x

Buchan, J., O'May, F., & Dussault, G. (2013). Nursing workforce policy and the economic crisis: A global overview. *Journal of Nursing Scholarship*, *45*(3), 298-307. http://dx.doi.org/10.1111/jnu.12028

Buffum, A. R., & Brandon, D. H. (2009). Mentoring new nurses in the neonatal intensive care unit. *Journal of Perinatal & Neonatal Nursing*, *23*(4), 357-362. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Bureau of Labor Statistics. (2015). Employment projections: 2014-24 summary. Retrieved from http://www.bls.gov/news.release/ecopro.nr0.htm

Burr, S., Stichler, J. F., & Poeltler, D. (2011). Establishing a mentoring program. *Nursing for Women's Health*, *15*(3), 214-224. http://dx.doi.org/10.1111/j.1751-486X.2011.01636.x

Carlson, L., Crawford, N., & Contrades, S. (1989). Nursing student novice to expert-Benner's research applied to education. *Journal of Nursing Education*, *28*(4), 188-190. Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/1026684915?accountid=14244

Carnevale, A. P., Smith, N., & Gulish, A. (2015). Nursing: Supply and demand through 2020. Retrieved from https://cew.georgetown.edu/wp-content/uploads/Nursing-Supply-Final.pdf

Chappell, K. B., Richards, K. C., & Barnett, S. D. (2014). New graduate nurse transition programs and clinical leadership skills in novice RNs. *The Journal of Nursing Administration*, *44*(12), 659-668. http://dx.doi.org/10.1097/NNA.0000000000000144

Cockshaw, W. D., & Shochet, I. (2010). The link between belongingness and depressive symptoms:An exploration in the workplace interpersonal context. *Australian Psychologist*, *45*(4), 283-289. Retrieved from http://vb3lk7eb4t.search.serialssolutions.com.libproxy.lib.unc.edu

Cottingham, S., DiBartolo, M. C., Battistoni, S., & Brown, T. (2011). Partners in nursing: A mentoring initiative to enhance nurse retention. *Nursing Education Perspectives*, *32*(4), 250-255. http://dx.doi.org/10.5480/1536-5026-32.4.250

Damrosch, S. (1986). Ensuring anonymity by use of subject-generated identification codes. *Research In Nursing & Health* , *9*(1), 61-63.

Davis, A., & Maisano, P. (2016). Patricia Benner: Novice to expert -- a concept whose time has come again. *Oklahoma Nurse*, *61*(3), 13-15. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu

Dreyfus, H. L., & Dreyfus, S. E. (1986). *Mind over machine: The power of human intuitive expertise in the era of the computer*. New York, NY: Free Press.

Dreyfus, S. E., & Dreyfus, H. L. (1980). *A five-stage model of the mental activities involved in directed skill acquisition* (Doctoral dissertation, University of California, Berkley). Retrieved from http://www.dtic.mil/dtic/tr/fulltext/u2/a084551.pdf

Duclos-Miller, P. A. (2011). Successful graduate nurse transition: Meeting the challenge. *Nurse Leader*, *9*(4), 32-49. http://dx.doi.org/10.1016/j.mnl.2011.05.006

Dyess, S., & Parker, C. G. (2012). Transition support for the newly licensed nurse: A programme that made a difference. *Journal of Nursing Management*, *20*(5), 615-623. http://dx.doi.org/10.1111/j.1365-2834.2012.01330.x

Faron, S., & Poeltler, D. (2007). Growing our own: Inspiring growth and increasing retention through mentoring. *Nursing for Women's Health*, *11*(2), 139-143. http://dx.doi.org/10.1111/j.1751-486X.2007.00142.x

Fink, R., Krugman, M., Casey, K., & Goode, C. (2008). The graduate nurse experience: Qualitative residency program outcomes . *The Journal of Nursing Administration*, *38*(7/8), 341-348. http://dx.doi.org/10.1097/01.NNA.0000323943.82016.48

Fox, K. C. (2010). Mentor program boosts new nurses' satisfaction and lowers turnover rate. *Journal of Continuing Education in Nursing*, *41*(7), 311-316. http://dx.doi.org/10.3928/00220124-20100401-04

Gallegos, C., & Sortedahl, C. (2015). An exploration of professional values held by nurses at a large freestanding pediatric hospital. *Pediatric Nursing*, *41*(4), 187-195. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu

Gillen, S. (2014). Workforce audit acknowledges an imminent crisis in nurse numbers. *Nursing Standard*, *28*(22), 7. http://dx.doi.org/10.7748/ns2014.01.28.22.7.s2

Goode, C. J., Lynn, M. R., McElroy, D., Bednash, G. D., & Murray, B. (2013). Lessons learned from 10 years of research on a post-baccalaureate nurse residency program. *The Journal of Nursing Administration*, *43*(2), 73-79. https://doi.org/10.1097/NNA.0b013e31827f205c

Gordon, C. J., Aggar, C., Williams, A. M., Walker, L., Willcock, S. M., & Bloomfield, J. (2014). A transition program to primary health care fornew graduate nurses: a strategy towards buildinga sustainable primary health care nurseworkforce? *BMC Nursing*, *13*. Retrieved from https://search-proquest-com.libproxy.lib.unc.edu/docview/1643338661?pq-origsite=summon

Grindel, C. G., & Hagerstrom, G. (2009). Nurses nurturing nurses: Outcomes and lessons learned. *Medsurg Nursing*, *18*(3), 183-194. Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/230522862?accountid=14244

Halfer, D., Graf, E., & Sullivan, C. (2008). The organizational impact of a new graduate pediatric nurse mentoring program. *Nursing Economics*, *26*(4), 243-249. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu/ehost

Henderson, A., Ossenberg, C., & Tyler, S. (2015). 'What matters to graduates': An evaluation of a structured clinical support program for newly graduated nurses. *Nurse Education in Practice*, *15*, 225-231. http://dx.doi.org/10.1016/j.nepr.2015.01.009

Herman, B. (2013). 10 statistics on hospital labor costs as a percentage of operating revenue. Retrieved from http://www.beckershospitalreview.com/finance/10-statistics-on-hospital-labor-costs-as-a-percentage-of-operating-revenue.html

Hnatiuk, C. N. (2013). Mentoring nurses toward success. *Minority Nurse*. Retrieved from http://minoritynurse.com/mentoring-nurses-toward-success/

Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D. G., & Newman, T. B. (2013). *Designing clinical research* (4th ed.). Philadelphia, PA: Lippincott.

Institute of Medicine . (2011). In *The future of nursing: Leading change, advancing health*. http://dx.doi.org/10.17226/12956

Jewell, A. (2013). Supporting the novice nurse to fly: A literature review. *Nurse Education in Practice*, *13*(4), 323-327. http://dx.doi.org/10.1016/j.nepr.2013.04.006

Jones, C. B. (1990a). Staff nurse turnover costs: Part I, a conceptual model. *Journal of Nursing Administration*, *20*(4), 18-23. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/2109052

Jones, C. B. (1990b). Staff nurse turnover costs: Part II, measurements and results. *Journal of Nursing Administration*, *20*(5), 27-32. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/2271020

Jones, C. B. (2004). The costs of nursing turnover, part 1: An economic perspective. *The Journal of Nursing Administration*, *34*(12), 562-570. Retrieved from http://ovidsp.tx.ovid.com.libproxy.lib.unc.edu

Jones, C. B. (2005). The costs of nurse turnover, part 2: Application of the nursing turnover cost calculation methodology. . *Journal of Nursing Administration*, *35*(1), 41-49. Retrieved from http://ovidsp.tx.ovid.com.libproxy.lib.unc.edu

Jones, C. B. (2008). Revisiting nurse turnover costs: adjusting for inflation. *Journal of Nursing Administration*, *38*(1), 11-18. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu

Kanaskie, M. L. (2006). Mentoring- A staff retention tool. *Critical Care Nursing Quarterly*, *29*(3), 248-252. Retrieved from http://vb3lk7eb4t.search.serialssolutions.com.libproxy.lib.unc.edu

Komaratat, S., & Oumtanee, A. (2009). Using a mentorship model to prepare newly graduated nurses for competency. *Journal of Continuing Education in Nursing*, *40*(10), 475-480. http://dx.doi.org/10.3928/00220124-20090923-02

Kovner, C. T., Brewer, C. S., Fatehi, F., & Jun, J. (2014). What does nurse turnover rate mean and what is the rate? *Policy, Politics, & Nursing Practice*, *15*(3/4), 64-71. http://dx.doi.org/10.1177/1527154414547953

Kramer, M. (1974). *Reality shock: Why nurses leave nursing*. St. Louis, MO: Mosby.

Krause-Parello, C. A., Sarcone, A., Samms, K., & Boyd, Z. N. (2013). Developing a center for nursing research: An influence on nursing education and research through mentorship. *Nurse Education in Practice*, *13*(2), 106-112. https://doi.org/10.1016/j.nepr.2012.08.004

Lalonde, M., & McGillis Hall, L. (2017). The socialisation of new graduate nurses during a preceptorship programme: strategies for recruitment and support. *Journal of Clinical Nursing*, *26*(5/6), 774-783. http://dx.doi.org/10.1111/jocn.13563

Latham, C. L., Ringl, K., & Hogan, M. (2011). Professionalization and retention outcomes of a university–service mentoring program partnership. *Journal of Professional Nursing*, *27*(6), 344-353. https://doi.org/10.1016/j.profnurs.2011.04.015

Levett-Jones, T., Lathlean, J., Higgins, I., & McMillan, M. (2009). Development and psychometric testing of theBelongingness Scale—Clinical Placement Experience:An international comparative study. *Collegian*, *16*, 153-162. http://dx.doi.org/10.1016/j.colegn.2009.04.004

Levett-Jones, T., Lathlean, J., Higgins, I., & McMillian, M. (2008). The duration of clinical placements: a key influence on nursing students' experience of belongingness. *Austrailian Journal of Advanced Nursing*, *26*(2), 8-16. Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/204206648?accountid=14244

Levett-Jones, T., Lathlean, J., McMillan, M., & Higgins, I. (2007). Belongingness: A montage of nursing students' stories of their clinical placement experiences. *Contemporary Nurse*, *24*(2), 162-174. Retrieved from http://search.proquest.com.libproxy.lib.unc.edu

LoBiondo-Wood, G., & Haber, J. (2010). *Nursing research: Methods and critical appraisal for evidence-based practice* (7th ed.). St. Louis, MO:

Longo, M., Roussel, L., Pennington, S. L., & Hoying, C. (2013). The frontline clinical manager identifying direct reports' level of practice. *Journal of Pediatric Oncology Nursing*, *30*(5), 260-268. http://dx.doi.org/10.1177/1043454213493506

McCloughen, A., & O'Brien, L. (2005). Development of a mentorship programme for new graduate nurses in mental health. *International Journal Of Mental Health Nursing*, *14*(4), 276-284. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu/ehost

McKenna, L., Gilmour, C., Biro, M. A., McIntyre, M., Bailey, C., Jones, J., ... McLelland, G. (2012). Undergraduate midwifery students' sense of belongingness in clinical practice. *Nurse Education Today*, *33*(8), 880-883. http://dx.doi.org/10.1016/j.nedt.2012.09.009

Mills, J. F., & Mullins, A. C. (2008). The California nurse mentor project: Every nurse deserves a mentor. *Nursing Economics*, *26*(5), 310-315. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement . *Annals of Internal Medicine*, *151*(4), 264-269. http://dx.doi.org/10.7326/0003-4819-151-4-200908180-00135

National Council of State Boards of Nursing. (2015). 2015 national nursing workforce study. Retrieved from https://www.ncsbn.org/workforce.htm

Newhouse, R. P., Hoffman, J. J., Suflita, J., & Hariston, D. P. (2007). Evaluating an innovative program to improve new nurse graduate socialization into the acute healthcare setting. *Nursing Administration Quarterly* , *31(1*), 50-60.

Ortiz, J. (2016). New graduate nurses' experiences about lack of professional confidence. *Nurse Education in Practice*, *19*, 19-24. http://dx.doi.org/10.1111/j.1365-2834.2012.01330.x

Peltokoski, J., Vehviläinen-Julkunen, K., & Miettinen, M. (2016). Nurses' hospital orientation and future research challenges: An integrative review. *International Nursing Review*, *63*(1), 92-103. http://dx.doi.org/10.1111/inr.12226

Pfaff, K. A., Baxter, P. E., Jack, S. M., & Ploeg, J. (2014). Exploring new graduate nurse confidence in interprofessional collaboration: A mixed methods study. *International Journal of Nursing Studies*, *51*(8), 1142-1152. http://dx.doi.org/10.1016/j.ijnurstu.2014.01.001

Plawecki, H. M., & Plawecki, L. H. (2015). The emerging baby boomer health care crisis. *Journal of Gerontological Nursing*, *41*(11), 3-5. http://dx.doi.org/10.3928/00989134-20151015-22

Punke, H. (2017). Which states will have the biggest nursing shortages by 2025? Retrieved from http://www.beckershospitalreview.com/human-capital-and-risk/which-states-will-have-the-biggest-nursing-shortages-by-2025.html

Robitalle, P. (2013). Preceptor-based orientation programs for new nurse graduates. *AORN Journal*, *98*(5), C7-C8. https://doi.org/10.1016/S0001-2092(13)01080-6

Rohatinsky, N. K., & Jahner, S. (2015). Supporting nurses' transition to rural healthcare environments through mentorship. *The International Electronic Journal of Rural and Remote Health Research, Education, Practice, and Policy*, 1-14. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Rush, K. L., Adamack, M., Gordon, J., Lilly, M., & Janke, R. (2013). Best practices of formal new graduate nurse transition programs: An integrative review . *International Journal of Nursing Studies*, *50*, 345-356. http://dx.doi.org/10.1016/j.ijnurstu.2012.06.009

Schroyer, C. C., Zellers, R., & Abraham, S. (2016). Increasing registered nurse retention using mentors incritical care services. *The Health Care Manager*, *35*(3), 251-265. http://dx.doi.org/10.1097/HCM.0000000000000118

Scott, E. S., & Smith, S. D. (2008). Group mentoring: A transition-to-work strategy. *Journal for Nurses in Staff Development*, *24*(5), 232-238. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed

Society for Human Resource Management. (2015). How to determine turnover rate . Retrieved from https://www.shrm.org/resourcesandtools/tools-and-samples/how-to-guides/pages/determineturnoverrate.aspx

The Institute of Healthcare Improvement. (2017). The IHI triple aim. Retrieved January 21, 2017, from http://www.ihi.org/engage/initiatives/tripleaim/pages/default.aspx

The University of North Carolina at Chapel Hill. (2017). Required ethics training. Retrieved March 22, 2017, from http://research.unc.edu/offices/human-research-ethics/getting-started/training/#CITICOURSE

Thew, J. (2017). Insight report: Nursing shortages demand 'disruptive' action. Retrieved from http://www.healthleadersmedia.com/nurse-leaders/insight-report-nursing-shortages-demand-disruptive-action#

Trepanier, S., Early, S., Ulrich, B., & Cherry, B. (2012). New graduate nurse residency program: A cost-benefit analysis based on turnover and contract labor usage. *Nursing Economics*, *30*(4), 207-214. Retrieved from http://web.a.ebscohost.com.libproxy.lib.unc.edu

Ulrich, B., Krozek, C., Early, S., Ashlock, C. H., Africa, L. M., & Carmen, M. L. (2010). Improving retention, confidence, and competence of new graduate nurses: results from a 10-Year longitudinal database. *Nursing Economics* , *28*(6), 363-375.

Ulrich, B., Krozek, C., Early, S., Ashlock, H. C., Africa, M. L., & Carmen, L. M. (2010). Improving retention, confidence, and competence of new graduate nurses: Results from a 10- year longitudinal database. *Nursing Economics*, *28(6*), 363-375.

UNC Rex Healthcare. (n.d.). About UNC Rex healthcare. Retrieved January 21, 2017, from https://www.rexhealth.com/rh/about/

United Stated Department of Labor. (2018). Occupational outlook handbook: Registered nurses. Retrieved November 2, 2018, from https://www.bls.gov/ooh/Healthcare/Registered-nurses.htm

Webster, J., & Flint, A. (2014). Exit interviews to reduce turnover amongst healthcare professionals. *Cochrane database of systematic reviews* . https://doi.org/10.1002/14651858.CD006620.pub4

Weng, R., Huang, C., Tsai, W., Chang, L., Lin, S., & Lee, M. (2010). Exploring the impact of mentoring functions on job satisfaction and organizational commitment of new staff nurses. *BMC Health Services Research*, *10*, 240. http://dx.doi.org/10.1186/1472-6963-10-240

Wensel, T. M. (2006). Mentor or preceptor: What is the difference? *American Journal of Helath-System Pharmacy*, *63*(17), 1597. https://doi.org/10.2146/ajhp060121

Wieck, K. L., Dols, J., & Landrum, P. (2010). Retention priorities for the intergenerational nurse workforce. *Nursing Forum*, *45*(1), 7-17. Retrieved from http://search.proquest.com.libproxy.lib.unc.edu

Winter-Collins, A., & McDaniel, A. (2000). Sense of belonging and new graduate job satisfaction. *Journal for Nurses in Staff Development*, *16*(3), 103-111. Retrieved from http://ovidsp.tx.ovid.com.libproxy.lib.unc.edu

Woodworth, J. (2012). A group orientation model for new graduate nurses. *Journal for Nurses in Staff Development*, *28*(5), 219-221. http://dx.doi.org/10.1097/NND.0b013e318269fc8d